

AUTHOR: Kroupa, František

CZECH/37-58-6-20/30

TITLE: The Deformation of a Whisker Containing a Screw Dislocation (Deformace tenkého vlákna se šroubovou dislokací)

PERIODICAL: Československý Casopis Pro Fysiku, 1958, Nr 6,  
pp 737 - 738 + 1 plate (Czech)

ABSTRACT: Eshelby (Ref 2) studied the theory of deformation of a whisker containing a screw dislocation along its axis. Such a whisker should be deformed into a spiral but the axis should remain straight. Treutin (Ref 3) found some experimental evidence for this.

In Eshelby's and similar theories the fact that the total deformation might be too large to permit the use of the theory of elasticity is not taken into consideration. More complicated deformations may therefore be expected and, for example, Brenner (Ref 6) found whiskers in which the axis itself was deformed into a spiral.

To demonstrate this possibility, a simple model has been constructed (see also Ref 5) from a rubber tube (length 2 m, ext. dia.  $R_1 = 0.5$  cm, int. dia.  $R_2 = 0.3$  cm) marked every 5 cm by a ring and marked by a straight line along the tube. The tube was cut along this line and after a

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The Deformation of a Whisker Containing a Screw Dislocation  
relative displacement of the cut surfaces by about  
 $b = 0.6$  cm in the direction of the axis, the surfaces  
were glued together. If a steel rod was inserted into  
the tube to keep the axis straight, a spiral deformation,  
somewhat smaller than the theoretically predicted one  
(Eq 1) was observed. The discrepancy was probably due to  
the fact mentioned above, i.e. too large a deformation.  
Without the steel rod, an additional deformation of the  
axis into a spiral (helix) of approx. 0.3 cm dia. was  
observed (Figure 1).

There are 1 figure and 6 references, 5 of which are  
English and 1 German.

ASSOCIATION: Fysikální ústav ČSAV, Praha (Institute of Physics  
of the Czech Ac.Sc., Prague)

SUBMITTED: May 5, 1958

Card 2/2

CZECHOSLOVAKIA/Solid State Physics - Crystal Morphology

E.

Abs Jour : Ref Zhur - Fizika, No 7, 1959, 15475

Author : Kroupa, Frantisek

Inst : "

Title : Etching Figures on Iron Silicide

Orig Pub : Ceskosl. casop. fys., 1958, 8, No 2, 171-178

Abstract : See Ref Zhur Fizika, 1959, No 3, 5731.

Card 1/1

CZECHOSLOVAKIA/Physics of Solid Bodies - Morphology of Crystals

E-8

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 5/31

Author : Kroupa Frantisek

Inst : Institute of Physics, Prague, Czechoslovakia

Title : Etch Figures on Silicon Iron

Orig Pub : Chekhosl. fiz. zh., 1958, 8, No 2, 186-195, 268d-268e

Abstract : After electrical etching of single crystals of an iron alloy containing approximately 4 percent silicon, in an electrolyte consisting of hydrochloric and acetic acid, etching figures were obtained on the surface of the single crystals. When observed under a metallographic microscope, these figures were found to have a step-like character. In some places of the (110) planes, or close to them, the steps form recesses of spiral shape. With the aid of an attachment, in which multiple-ray interference is used, for the metallographic microscope, the author has measured the height of these steps, which differs for different steps and changes from several tens to

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CZECHOSLOVAKIA/Physics of Solid Bodies. Morphology of Crystals

E-8

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 5731

1000 Å. The appearance of steps with such height is explained as the accumulation of monatomic steps during the etching. These steps are produced on planes that differ little from the densely-occupied atomic planes, particularly (110). The monatomic steps accumulate to form polyatomic steps. Several explanations are given for the appearance of spirals of etching figures with great height of the steps. The explanations given in the literature that the etching occurs along a helical dislocation with a large Burgers vector or on a group of helical dislocations with small Burgers vectors of the same sign, is considered by us as little likely, as is also the explanation of Lang (Referat Zhur Fizika, 1957, No 12, 30455), who has proposed that, in the absence of a helical dislocation, the appearance of a spiral recession is essentially an accidental process. An extension of the known explanation for the appearance of such etching spirals on the dislocations with helical dislocations lines (which are observed in ionic crystals) to include the case of metals

Card : 2/3

AUTHOR: František Kroupa CZECH/37-59-2-1/20  
TITLE: The Deformation of a Whisker with an Edge Dislocation  
PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2,  
pp 117-123  
ABSTRACT: In a whisker containing an edge dislocation perpendicular to its axis, one expects a bending deformation as shown in Fig 1. We shall determine the total bending, i.e. the angle  $2\alpha_0$ . For such an edge dislocation with the dislocation line in the "z"-axis and the Burgers vector in the direction of axis "x", we obtain Eqs (1) and (2), (e.g. Ref 9) from the classical theory of elasticity for isotropic infinite media. The deformation in the direction of the "y" axis is given by Eq (3). These equations are valid for plane deformation, i.e. for cases when the thickness of the plate "a" in the direction of the axis "z" is large. For thin plates the use of Eqs (1), (2) and (3) is permissible but Poisson's Constant is replaced by a  $\sigma$ . As an auxiliary problem, we shall determine the stresses and strains in a thin beam, without a dislocation, with dimensions and directions as shown in Fig 1. The load  $p_1(x)$  is distributed and ✓  
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The Deformation of a Whisker with an Edge Dislocation CZECH/37-59-2-1/20  
the specific moment is  $m_1(x)$ . The solution is given by technical theory (Eqs 6-13). A further step is the solution for an infinite ribbon with an edge dislocation. This is obtained by a superposition of the solutions for an edge dislocation in an infinite medium, (Eqs (1), (3)) and the solution for an infinite ribbon with a suitably chosen distributed load, (Eqs (8), (13)). The distributed load is so chosen that after the superposition, we obtain zero normal and tensile stresses on the surfaces of the ribbon. A singularity corresponding to the dislocation remains in the "z" axis. The main approximation in this type of solution is due to the fact that the conditions for a technical solution of the beam are not correctly fulfilled. These demand that the external stress should vary slowly. We are interested in the deformation obtained for  $y = th$ . We must avoid the points,  $x = 0$ ,  $y = 0$ , as for these points the solution has no physical meaning. The deformation for  $y = h$  is given by Eq (14).  $2a_\infty$  is then Eq (16). Fig 3 shows "v" for  $\sigma = 0$ .

Card  
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The Deformation of a Whisker with an Edge Dislocation CZECH/37-59-2-1/20

Card 2 $a_{\infty}$  is of the order of magnitude b/h. It is easily  
3/3 observed only if the Bergers vector becomes rather large  
or in extremely thin filaments.  
There are 4 figures and 10 references, of which 6 are  
English, 1 French, 2 German and 1 Czech.

ASSOCIATION: Fysikální ústav ČSAV, Praha  
(Institute of Physics, Ac. Sc., Prague)

SUBMITTED: September 9, 1958

✓

AUTHOR: Kroupa, František

CZECH/37-59-3-5/29

TITLE: On the Connection Between the Mean Value of Internal  
Stresses and the Density of Dislocations

PERIODICAL: Československý časopis pro fysiku, 1959, Nr 3, pp 249-254

ABSTRACT: The study is suggested of the influence of dislocations on some properties of crystals on the basis of a mean value of stresses round dislocations, averaging over the whole volume of the crystal. Because both tension and compression have to be considered, the mean value of the absolute magnitude of stress is taken.

From the classical theory of elasticity in an isotropic medium we obtain for the main stresses round an edge dislocation lying in the z-direction with the Burgers vector in the x-direction (W.T. Read - Ref 1):

D:

$$\sigma_{1,2} = - \frac{1}{r} (\sin \theta \pm \cos \theta) ,$$

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$$\sigma_3 = \sigma_{zz} = - 2VD \frac{\sin \theta}{r} \quad (1)$$

CZECH/37-59-3-5/29

On the Connection Between the Mean Value of Internal Stresses and  
the Density of Dislocations

$D = Gb/2\pi r(1 - \nu)$ , all other symbols have their usual meaning. The maximum shear stresses are given by:

$$\begin{aligned}\tau_1 &= \sigma_{rz} = D \frac{\cos \theta}{r}, \\ \tau_{2,3} &= -\frac{D(1 - 2\nu)}{2} \frac{\sin \theta}{r} \pm \frac{D \cos \theta}{2r} \quad (2).\end{aligned}$$

The main stresses round a screw dislocation are:

$$\sigma_1 = -\sigma_2 = \sigma_{rz} = \frac{Gb}{2\pi r} \cdot \sigma_3 = 0 \quad (3).$$

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On the Connection Between the Mean Value of Internal Stresses and  
the Density of Dislocations

We first calculate the mean value of  $|\sigma|$  for a volume  
a.a.1;

$$\bar{\sigma} = \frac{\int_{-a/2}^{a/2} \int_{-a/2}^{a/2} |\sigma| dx dy}{a^2} \quad (4)$$

Next we consider a unit cube, with dislocations placed in  
the centre of each square of size a.a. The directions  
of the Burgers vectors are considered statistically  
distributed. The density of dislocations,  $s$ , is given  
by:

$$a = 1/\sqrt{8} \quad (8)$$

By substituting Eq (8) into (4), we obtain:

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$$\bar{\sigma} = K \sqrt{s} \quad (9)$$

CZECH/37-59-3-5/29  
On the Connection Between the Mean Value of Internal Stresses and  
the Density of Dislocations

We consider a statistical distribution of dislocations of all types with Burgers vector  $b$  and a mean distance  $a$  between them. The mean value of the shear stress  $\bar{\sigma}_T$  and of the normal stress  $\bar{\sigma}_N$  depends on the density of dislocations as shown in Eqs (10) and (11):

$$\bar{\sigma}_T = 1/2 Gb \sqrt{s} \quad (10)$$

$$\bar{\sigma}_N = 3/4 Gb \sqrt{s} \quad (11) .$$

In spite of the somewhat crude assumptions, these relations may prove useful, particularly when high densities of dislocations have to be considered and when the dependence of various properties of a solid on the crystalline orientation is of interest.

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CZECH/37-59-3-5/29  
On the Connection Between the Mean Value of Internal Stresses and  
the Density of Dislocations

There are 3 figures and 10 references, of which 4 are  
English, 1 Czech, 1 German and 4 international.

ASSOCIATION: Fysikální ústav ČSAV, Praha (Institute of Physics,  
Czechoslovak Ac.Sc., Prague)

SUBMITTED: September 29, 1958

Card 5/5



CZECHOSLOVAKIA/Solid State Physics - Mechanical Properties.

E

Abs Jour : Ref Zhur Fizika, No 4, 1960, 8823

Author : Kroupa Frantisek

Inst : -

Title : Deformation of a Whisker with Linear Dislocation

Orig Pub : Czechosl. phys. zh., 1959, No 3, 332-338

Abstract : No abstract.

Card 1/1

KROUPA F

Distr: 4E2c

The influence of the plastic deformation by cold-rolling  
on the coercive force. František Kroupa and Zdeněk  
Málek (Czechoslov. Acad. Sci., Prague). Czechoslov. J.  
Phys. 9, 627-37(1959)(in German).—Iron, Ni, and some  
alloys (Fe-Mo-Ni) were studied. The coercive force is  
measured parallel and perpendicular to the direction of  
rolling. The exptl. results are discussed, with emphasis on  
the influence of dislocations and the uniaxial, induced  
anisotropy. 21 references.

A. Kremheller

4  
1-mjc (50)

KROUPA, F.

Stress and deformation of an infinite slip caused by edge dislocation. p. 239

APLIKACE MATEMATIKY ( Ceskoslovenska akademie ved. Matematicky ustav)  
Praha, Czechoslovakia

Vol. 4, no. 5, 1959

Monthly list of East European Accessions (EEAI) LC. VOL. 9, no. 1 January 1960  
Uncl.

CZECHOSLOVAKIA/Solid State Physics - Mechanical Properties.

E

Abs Jour : Ref Zhur Fizika, No 4, 1960, 8822

Author : Kroupa, Frantisek

Inst : Physics Institute Czechoslovak Academy of Sciences,  
Prague, Czechoslovakia

Title : Deformation of a Crystal Whisker with Linear Dislocation

Orig Pub : Ceskosl. casop. fyz., 1959, 9, No 2, 117-123

Abstract : An approximate solution is given for the deformation of  
a plate, due to linear dislocation and lying in the cen-  
ter plane. The results are applied to estimate the ben-  
ding of a whisker under the influence of a linear dislo-  
cation: in the calculation, the whisker is approximated  
by an infinite strip.

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KRAKURA, F.

Distr: 4E2c(m)

2  
MJC(FD)

✓ Circular edge-dislocation loop. F. Krupa (Czech, Acad. Sci., Prague). Czechoslov. J. Phys. 10, 231-23 (1960) (in English).—A solution of the stress, deformation, and deformation energy for an edge dislocation with its dislocation line having the shape of a circle in an unlimited isotropic medium is presented. The possibility of using this solution in studying the dislocation loop in a crystal is discussed (cf. Kröner, Kontinuumstheorie der Versetzungen und Eigenspannungen, Springer Verlag, Berlin, 1958). 18 references.  
A. Kremhoffer

KROUPA, Frantisek

Principles of the dislocation theory. Pokroky fys nového věku 6:11-118  
'61. (KEAI 10:9)

1. Fyzikalni ustav Ceskoslovenske akademie ved.

(Dislocations in crystals)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUPA, Frantisek (Praha)

Examination of mechanical properties of solids. Pokroky mat fyz  
astr 8 no.4:215-227 '63.

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUPA, Frantisek

Statistics of infinitesimal dislocation loops. Cs cas  
fys 13 no. 4: 301-316 '63.

1. Fyzikalni ustav, Ceskoslovenska akademie ved, Praha.

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

ACCESSION NR: AP4038557

Z/0055/64/014/006/0337/0346

AUTHOR: Kroupa, F.; Vitek, V.

TITLE: Splitting of dislocations in b.c.c. metals on {110} planes

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 5, 1964, 337-346

TOPIC TAGS: elastic energy, good material, bad material, stored energy, screw dislocation, crystallography, stacking fault, solid state physics, metal crystal, metal crystal distortion, crystal dislocation

ABSTRACT: This article examines three possible splittings of a screw dislocation on (110) planes of a metal with a b.c.c. lattice. Their total elastic energy is calculated and the dependence of the splitting width on the stacking fault energy is studied. The three possible screw dislocation splittings are shown in Figure 2 of the enclosure. In case (a), the splitting occurs on a single {110} type plane. In case (b), the screw dislocation with  $b = \frac{1}{3} [111]$  splits on three {110} type planes into four dislocations according to the reaction

$$\frac{1}{3} [111] = 1/6 [110] + 1/6 [101] + 1/6 [011] + \frac{1}{3} [111].$$

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In case (c), the screw dislocation with Burgers vector  $b = \frac{1}{2} [111]$  again splits into six partials according to the reaction

$$\frac{1}{2} [111] = 1/8 [110] + 1/8 [110] + 1/8 [101] + 1/8 [101] + 1/8 [011] + 1/8 [011].$$

The total elastic energy per unit length of the extended dislocation is equal to

$$E = E_0 + E_{INT}^S + E_{INT}^E$$

where  $E_{INT}^S$  is the interaction energy of the partials and  $E_{INT}^E$  is the interaction energy of the edge parts. Author shows that the total stacking fault energy is one or two orders lower than the elastic energy  $E$  for the equilibrium width of the extended dislocation. Alpha type splitting can occur during plastic working with a general dislocation loop in the {110} slip plane. The Burgers vector will also lie in the same plane. The only possible configuration here is the a type, for which the dislocation moves in {110} planes. The b and c configurations of Figure 1 are possible only with immobile pure screw dislocations. Before putting the screw dislocation with b or c configuration into motion, it must first be transformed into an a configuration. Splitting of the b or c type can also be responsible for the fact that the immobile screw parts of the dislocation are straight. With further

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ACCESSION NR: AP4038557

slip, movement takes place on that plane of {110} type planes on which the repeated a type splitting is energetically most favorable. "We wish to express our thanks to B. Sestak, CSC, and S. Libovicky for valuable comments and M. Jirincova for her help in carrying out the numerical calculations." Orig. art. has: 5 figures and 16 equations.

ASSOCIATION: Institute of Physics, Czech. Academy of Sciences, Prague; Research and Testing Institute, Skoda Works, Plzen

SUBMITTED: 20Sep63

DATE ACQ: 09Jun64

ENCL: 01

SUB CODE: SS

NO REF Sov: 000

OTHER: 020

Cord 3/4

ACCESSION NR: AP4038557

ENCLOSURE: 01

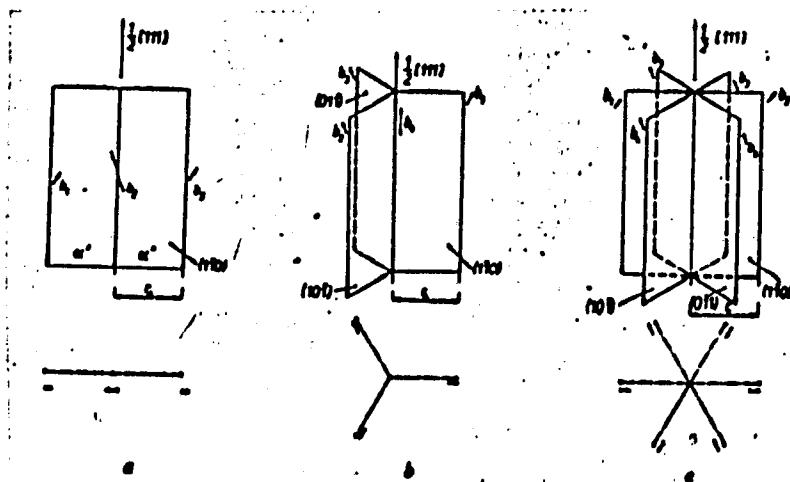


Fig. 1. Three splittings of screw dislocations with  $\alpha$ -type stacking faults on  $\{110\}$  planes

Card 4/4

BASTECKA, J.; KROUPA, F.

Elastic interaction of dislocation loops and point defects.  
Chekhosl fiz zhurnal 14 no. 6: 443-453 '64.

1. Institute of Physics, Czechoslovak Academy of Sciences,  
Prague 8, Lumumbova 1.

KROUPA, Frantisek

Discussion of the Faraday Society on Dislocations in Solids,  
Gottingen 1964. Cs cas fys 15 no.3:280-282 '65.

1. Institute of Physics of the Czechoslovak Academy of Sciences,  
Prague. Submitted October 15, 1964.

L 35149-56 T/ENP(L)/ETI IJP(z) JD

ACC NR: AP6018078

SOURCE CODE: CZ/0055/65/015/012/0896/0900

23  
22  
BAUTHOR: Kroupa, F.ORG: Institute of Physics, Czechosl. Acad. Sci., PragueTITLE: Dislocation dipoles of infinitesimal width

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 12, 1965, 896-900

TOPIC TAGS: dipole interaction, Burgers vector, CRYSTAL DISLOCATIONS

ABSTRACT: Dislocation dipoles, i.e., close pairs of dislocations with opposite Burgers vectors, have proved to be frequent and important defects in plastically deformed crystals [Gilman, J. J.; Disc. Farad. Soc. 38 (1964), 123]. The author of the paper discusses the stress field of a dislocation dipole of infinite width as expressed by dislocation stress gradients. He describes a general dislocation dipole loop, a straight-edge dipole loop, and the long-range interaction between an edge dipole and a spiral dislocation. The author states in his conclusion that, with the exception of a straight infinite dipole, the dislocation dipole loop does not, as a rule, have a direct simple analogy in crystals, (a dipole of finite length is only an elongated dislocation loop), but the loop may be applicable in some cases. The stress field of a straight dipole is complicated, but it may be calculated simply as the sum of the stress fields of both dislocations making up the dipole. The

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ACC NR: AP6018078

concept of a dipole of infinite width is a convenient simplification of the stress field of the dipole of finite width. The author is indebted to Professor Y. Y. Gilman for his interest and encouragement. Orig. art. has: 4 figures and 2 formulas.

[GC]

SUB CODE: 09, 20/ SUBM DATE: 12May65/ ORIG REF: 002/ OTH REF: 005

Card 2/2 *llc*

KROUPA, J.

TECHNOLOGY

Periodical: KRIDLÁ VLASTI. Vol. 4, no. 10, Oct. 1958

KROUPA, J. Economic advantages of using steel barrels for beer transportation.  
p. 217.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3  
March 1959, Uncl.

KROUPA, J.; TEMLIK, H.

Remarks on first aid and the care of wounds. Rozhl. chir. 44  
no.4:217-223 Ap'65.

1. Vyzkumny ustav traumatologicky v Brne (reditel: prof. dr.  
V. Novak, DrSc.).

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUPA, J.; SALANSKY, I.; UHER, J.; Technicka spoluprace F. Utrata

Heparin in the prevention of fat embolism. (Experimental work  
with lipiodol). Rozh. chir. 43 no.4:204-210 Ap '64.

1. Vyzkumny ustav traumatologicky v Vrne (reditel prof. dr.  
Vl. Novak, DrSc.).

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

BRENIK, Premysl, prof., dr., inz.; KROUPA, J., doc., inz.; HALA, F.; BUDIN, M., inz.; JERIE, J., inz., dr.; BELIK, inz., C.Sc.; KACER, inz.; BUKOVSKY, J., prof.; KUNES, J., inz.; MARCELLI, V., dr., inz.; VILD, B.; EMINGER, Z., Dr.Sc.; SKARECKY, inz.; DRAHY, J., inz.; MASEK, J., inz.; DOLEZAL, inz.; URBANEK, J., inz., C.Sc.; JUZA, dr., inz.; BECVAR, Josef, prof., inz.; KRAL, V., inz.; BALOS, inz.; KELLAR, J.; POSPISIL, J., inz.

A conference on heavy-duty steam and gas turbines in Plzen. Energetika Cz 11 no.5:259-262 My '61.

1. Vysoka skola strojni a elektrotechnicka, Plzen (for Brenik, Bukovsky and Becvar). 2. Ministerstvo tezkeho strojirenstvi (for Kroupa). 3. Ceskoslovenska akademie ved (for Pospisil). 4. Leninovy zavody, Plzen (for Hala, Marcelli, Belik, Vild, Eminger, Drahy, Masek, Urbanek, Juza, Kral and Dolezal). 5. Prvni brnenska strojirna, Zavody Klementa Gottwalda (for Budin and Balos). 6. Statni vyzkumny ustav tepelne technicky (for Jerie, Kacer and Skarecky). 7. Cten korespondent Ceskoslovenske akademie ved (for Jerie and Juza).

8(6)

SOV/112-59-1-324

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1, p 41 (USSR)

AUTHOR: Kroupa, Jan.

TITLE: Power Equipment for Steam Stations in Czechoslovakia

PERIODICAL: Chekhol. tyazh. prom-st', 1957, Nr 11, pp 2-4

ABSTRACT: Bibliographic entry.

Card 1/1

KROUPA, Jan, inz.

Control of relief stations of large electric power plants.  
Energetika Cz 13 no.12:636-642 D '63.

1. Zavody prumyslove automatizace, Praha.

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUFA, Jan, inz.

Filling stations for traction motors. Zel dop tech 11  
no.11:324-325 '63.

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

KAMELA, J.

Current possibilities in the prevention of post-traumatic fat embolism. Rozhl. chir. 43 no.7:433-441 Jl '64.

I. Výzkumný ústav traumatologický v Brně (ředitel prof. dr. V. Novák, DrSc.).

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUPA, J.; UHER, J.

Detection of fat globules in the peripheral blood after injuries.  
Acta chir. orthop. traum. cech. 31 no.1:18-28 F '64.

1. Vyzkumný ustav traumatologicky v Brně, (reditel prof. dr.  
Vl. Novák, DrSc.).

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

KROUPA, Jiri, inz.

Ionization detectors of radiation. Jaderna energie 3 no.2:39-43 F '57.

1. Ustav jaderne fysiky, Ceskoslovenska akademie ved, Praha.

CZECHOSLOVAKI/Electronics - General Problems.

II

Abs Jour : Ref Zhur Fizika; № 10, 1959, 23001

Author : Kroupa, Jiri

Inst : Institute for Nuclear Physics, Czechoslovak Academy of Sciences Generator of Program Pulses

Orig Pub : Slaboproudý obzor, 1958, 19, № 12, 862-864

Abstract : The author describes an electronic generator of program control pulses, which is a part of the apparatus for the study of high power discharges in gases. The generator produces pulses that actuate in a specified sequence, three-electrode discharges, with which the operation of the whole apparatus is programmed. The generator can be used in cases when it is necessary to control precisely an entire series of high-power pulsed circuits.

Card 1/1

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

S/196/62/000/012/006/016  
E194/E155AUTHOR: Kroupa, Jiri

TITLE: A silver-zinc cell

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.12, 1962, 9, abstract 12 A48. P. (Czechoslovak Patent, 21b, 25/01, No.98196, 15.01.61).

TEXT: The construction of a cylindrical silver-zinc cell is patented. It can be used to supply a pocket torch bulb; the cell life is 800 hours. A cylindrical plastic vessel surrounds a concentric plastic hollow cylinder, the inside of which forms a gas chamber. The cylindrical electrodes and separator are in the space between the outer wall of the hollow cylinder and the vessel wall. The separator material is selected so as to absorb all the electrolyte without leaving free liquid in the cell. The two terminals are brought out to the top and bottom of the cell respectively. ✓

[Abstractor's note: Complete translation.]

Card 1/1

DELONG, Armin, inz., C.Sc.; DRAHOS, Vladimir, inz., C.Sc.; KROUPA, Jiri,  
inz.

Velocity analyser for measuring stability of the accelerating  
voltage in an electron microscope. Slaboproudý obzor 23  
no.6:311-316 Je '62.

1. Ustav pristrojove techniky, Ceskoslovenska akademie ved,  
Brno.

KROUPA, Josef

Economic evaluation of coal immobilized in the shaft pillars and  
pillars under surface installations. Uhli 4 no.9:316-318 S '62.

1. Statni ustanov racionovaneho planovani, Praha.

KULENDIK, V.; KROUPA, J.

Pneumoarthrography in injuries of semilunar cartilage. Lek.listy  
5 no.24:727-731 15 Dec 50. (CML 20:5)

1. Of the Casualty Hospital of OMP in Brno (Head--Prof.Vladimir  
Novak, M.D.).

KROUPA J.

Lecení hnisavých onemocnění prstů a ruky v Urazové nemocnici.  
/Treatment of suppurative diseases of the hand and fingers at  
the Traumatologic Hospital/ Lek. listy 6:10 15 May 51  
p. 296-300.

1. Of Casualty Hospital Brno (Head---Prof. Vlad. Novak, M.D.).  
CIML Vol. 20, No. 10 Oct 1951

KROUPA, J.

Sleep therapy. Prak. lek., Praha 32 no.21:477-479 5 Nov 1952. (CLML 23:4)

1. Of the Traumatological Hospital (Head--Prof. Vl. Novak, M.D.), Brno.

KROUPA, J.

Considerations on early complications in fractures of the long bones;  
shock, fat embolism, and crush syndrome. Acta chir. orthop. traum.  
cech. 20 no.9-10:218-222 1953. (CIML 25:5)

1. Of the Traumatic Hospital (Head--Prof. V. Novak, M.D.), Brno.

KROUPA, Josef, MUDr

Lesions of the soft tissue of the ankle caused by sprain. Lek.  
listy, Brno 9 no.18:420:424 15 Sept 54.

1. Z Vyzkumneho ustavu traumatologickeho v Brne. Z Urazove  
nemocnice v Brne. Reditel: prof. MUDr Vl. Novak.

(SPRAINS AND STRAINS,

ankle, causing lesions of soft tissue)

(ANKLE, wounds and injuries,

sprain causing lesions of soft tissue)

KROUPA, Josef, MUDr (Brno, Ant. Macka 7)

Vaccination against tetanus. Lek. listy, Brno 9 no.21:498-499  
1 Nov 54.

1. Z Vyzkumneho ustavu traumatologickeho v Brne. Reditel: prof.  
MUDr Vladimir Novak.

(TETANUS, prevention and control,  
vacc.)  
(VACCINES AND VACCINATION,  
tetanus)

KROUPA, Josef, MUDr.

Contribution to the treatment of pelvic fractures in suspension.  
Acta chir. orthop. traum. cech. 22 no.3:94-195 May 55.

1. Z Vyskumneho ustavu traumatologickeho v Brne, reditel prof.  
MUDr. Vl. Novak.

(PELVIS, fractures  
ther., suspension)

(FRACTURES  
pelvis, ther., suspension)

KROUPA, Josef, MUDr

Therapeutic use of sleep in traumatological department. Reshl.chir.  
34, no.7:418-427 Aug 55.

1. Z Vyskumneho ustanova traumatologickeho v Brne, reditel prof. MUDr  
Vl. Novak.

(WOUNDS AND INJURIES, therapy  
sleep)

(SLEEP, therapeutic use  
wds. & inj.)

(CENTRAL NERVOUS SYSTEM, diseases  
lesions, sleep ther.)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUPA, J.

Traumatology Research Institute at Brno. Acta chir. orthop.  
traum. cesk. 23 no.5:233-235 Sept 56.

(WOUNDS AND INJURIES,  
Traum. Research Institute at Brno (Cz))

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

KROUPA, J., MUDr.

Intra-arterial administration of penicillin; functional method  
of therapy of progressive infections of fingers and hand. Acta  
chir. orthop. traum. cesk. 23 no.5:244-252 Sept 56.

1. Vyskumný ustav traumatologicky v Brne, reditel prof. Dr.  
Vladimir Novak.

(HAND, diseases,

infect., progr., of hand & fingers, intra-arterial  
penicillin ther. (Cx))

(PENICILLIN, therapeutic use,

hand & fingers progr. infect., intra-arterial admin. (Cx))

KULENDIK, V., MUDr.; KROUPA, J., MUDr.

Acute traumatic dislocation of the hip. Acta chir. orthop. traum.  
cesk. 23 no.5:259-265 Sept 56.

1. Vyskumný ustav traumatologicky v Brně, reditel prof. Dr.  
Vladimir Novák.

(HIP, disloc.

traum., acute, statist. & management (Cx))  
(WOUNDS AND INJURIES, compl.

acute hip disloc., statist. & management (Cx))

SACERPTA MEDICA Sec.9 Vol.11/11 Surgery Nov 57  
KROUPA J.

5633. (1215) KROUPA J., Výzkumného Úst. Traumatol., Brno. "Príspěvek k úloze penicilliu v prevenci infekce náhodných ran na prstech a ruce. Notes on the use of penicillin in the prevention of usual injuries of the finger and hand ROZHL. CHIR. 1956, 35/6 (337-352) Tables 7 Primary suture was performed in 3677 cases of finger and hand injuries. Some of them received no penicillin, some one injection only and others received several treatments with the antibiotic, usually mixed with a local anaesthetic. The results were evaluated statistically and are presented in 7 tables. The best figures were from the groups treated with 20,000-50,000 U. of penicillin with 1% procaine. Penicillin cannot sterilize devitalized tissues; this is a surgical task. It is best given locally by repeated doses or by a large general dose." Vlček - Prague

KROUPA, Josef, MUDr.

Hidden abdominal injury. Rozhl. chir. 36 no.3:142-154 Mar 57.

1. Vyskumny ustav traumatologicky v Brne, reditel prof. MUDr.  
Vladimir Novak.

(ABDOMEN, wj. & inj.  
hidden, statist. (Cx))

KROUPA, J.; SPONAR, J.

Significance of blood tributyrinase in objective diagnosis of  
traumatic fat embolism, Roshl. chir. 36 no.8:501-512 Aug 57.

1. Vyskumny ustav traumatologicky v Brne, reditel prof. Dr.  
Vladimir Novak.

(FRACTURES, compl.

fat embolism in long bone fract., diag. value of  
blood tributyrinase (Cx))

(PELVIS, fract.

causing fat embolism, diag. value of blood tributyrinase  
(Cx))

(EMBOLISM, diag.

fat, blood tributyrinase in pelvic & long bone fract.  
(Cx))

(LIPASES, in blood

tributyrinase in fat embolism in pelvic & long bone  
fract, diag. value (Cx))

KROUPA, Josef, MUDr., kand. lekar. ved.

25 Years' work of the casualty hospital in Brno, Cesk. zdravot, 6 no.12:  
691-698 Dec 58.

1. Vyzkumny ustav traumatologicky v Brne.

(HOSPITALS

Casualty Hosp. in Brno, organiz. (Cz))

(WOUNDS AND INJURIES, ther.

at Casualty Hosp. in Brno (Cz))

EXCHRPTA MEDICA Sec 9 Vol 13/1 Surgery Jan 59

710. THE IMPORTANCE OF THE SULPHO-PHOSPHO-VANILLIN REACTION  
IN THE RECOGNITION OF FAT EMBOLISM - Význam sulfo-fosfo-  
vanilinové reakce při rozpoznávání tukové embolie - Kroupa J.,  
Sponar J. and Ostrčil F. Výzkumný Úst. Traumatol., Brno -

ROZHL. CHIR. 1958, 37/1 (28-33) Graphs 4

The sulpho-phospho-vanillin reaction offers a means of dynamic following of the physical chemical processes in the organism after trauma. The reaction is based on changes in a doubly bound esterified unsaturated fatty acid and cholesterol in the serum. Along with the determination of serum tributyrinase it can confirm the clinical diagnosis of fat embolism. The authors have thus far collected more than 600 determinations expressed in mg./100 ml. of oleic acid. In the present communication a detailed analysis is presented of 366 observations in 63 traumatized patients with long bone fractures. Attention is drawn to the correlation between the course of tributyrinase, cholesterol and SPV changes.

KROUPE, J.; SPONAR, J.; OSTROIL, F.

Relation of blood tributyrinase to traumatic fat embolism. Roshl,  
chir. 37 no. 1:34-39 Jan 58.

1. Vyskumny ustav traumatologicky v Brne, reditel prof. MUDr Vladimír  
Novák, J. K., Brno 12, Ant. Macka 7.

(EMBOLISM, bleed in  
tributyrinase in posttraum. fat embolism (Cs))  
(LIPASES, in blood  
same)

KRC UPA, J. (Brno 12, Ant. Macka 7.)

Problems of active tetanus immunization. Rozhl. chir. 37 no.1:60-68  
Jan 58.

1. Vyskumny ustav traumatologicky v Brne, reditel prof. MUDr Vladimir  
Novak.

(TETANUS, immunol.  
anatoxin (Cz))

KROUPA, J., MUDr

Organization of the transport in casualty hospitals in Austria.  
Cesk. zdravot. 8 no.6:345-349 Je '60.

1. Vyzkumný ustav traumatologicky v Brně.  
(HOSPITALS)  
(ACCIDENTS)

KROUPA, J.;SPONAR, J.;KULHANEK, V.

Changes in the internal environment in injured subjects after  
heparin administration. Roshl. chir. 39 no.1:14-24 Ja '60

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr. Vl.  
Novak.

(ENZYMES, blood)  
(WOUNDS AND INJURIES, blood)  
(HEPARIN, pharmacol.)

KROUPA, J.; SPONAR, J.

Vitamin C and its role in reactions of the organism to injuries.  
Rozhl. chir. 39 no.1:25-33 Ja '60

1. Vyzkumný ustav traumatologicky v Brne, reditel prof. MUDr.  
Vladimir Novak.

(VITAMIN C, blood)  
(WOUNDS AND INJURIES, blood)  
(SURGERY OPERATIVE, blood)

KRCUPA, J.; KLEMENT, M.

Evaluation of sequelae of soft joint injury. Rozhl.chir.39  
no.12:833-841 D '60.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr.  
Vladimir Novak.  
(JOINTS wds & inj)

KROUPA, J.; HAVLÍČEK, I.: technická spoluprace: SPONAR, J.

Considerations on certain clinical signs in fat embolism.  
Cas.lek.cesk.99 no.37:1153-1160 9 S'60.

1. Výzkumný ústav traumatologicky v Brně, ředitel prof. MUDr.  
Vladimir Novák,  
(EMBOLISM diag)

KROUPA, J.

Immobilization time after injuries of soft articular tissues. Acta  
chir.orthop.traum.cech. 28 no.5:399-408 O '61.

1. Vyzkumný ustav traumatologicky v Brně, reditel prof. MUDr. Vladimír  
Novák, Dr.Sc.

(JOINTS wds & inj)

MASTNY, V.; KROUPA, J.

On sequelae of vertebral body injuries. Acta chir.orthop.traum.czech.  
28 no.5:438-443 O '61.

1. Vyzkumný ustav traumatologicky v Brně, reditel prof. MUDr. Vladimír  
Novák, doktor lékařských ved.

(SPINE fract & disloc)

KROUPA, Josef; SPONAR, Jaromir

Serum lipids after injuries and fat embolism. Rozhl. chir. 40 no.10:  
637-649 0 '61.

1. Vyzkumný ustav traumatologicky v Brně, reditel prof. MUDr. Vladimír  
Novák, Dr.Sc.

(FRACTURES blood) (LIPIDS blood) EMBOLISM blood)

KROUPA, J.

Period of immobilization after injuries of the soft tissue of the extremity. Rozhl. chir. 40 no.10:676-683 O '61.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr. Vladimir Novak, Dr.Sc.

(EXTREMITIES wds & inj)

KROUPA, J.

Impressions from a study trip to Austria. Cas.lek.cesk 100 no.3:  
18-23 20 Ja '61.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. dr. Vl. Novak.

(ORTHOPEDICS)

KROUPA, J.

Role of tributyrinase in the diagnosis of traumatic fat embolism.  
Chir. narz. ruchu. ortop. polska 27 no.2:247-248 '62.

1. Z Instytutu Urazowego w Brnie Dyrektor: prof. dr V. Novak.  
(EMBOLISM blood) (LIPASES blood)

SEFARA, B.; MIKES, R.; KROUFA, J.

The problem of emergency services in brain injuries. Rozhl.  
chir. 41 no.4:240-245 Ap '62.

1. Zahrannna sluzba NV hl. m. Prahy, reditel MUDr. R.Mikes  
Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr.  
Vlad. Novak.

(BRAIN wds & inj) (FIRST AID)

KROUPA, Josef

The time of immobilization after dislocation of joints of the upper  
and lower extremity. Rozhl. chir. 41 no.8:509-518 Ag '62.

1. Vyzkumný ustav traumatologicky v Brně, reditel prof. dr. V. Novák,  
DrSc.

(DISLOCATIONS)

(EXTREMITIES)

CHECOSLOVAKIA

KROUPA, J., MD., CSc.

Research Institute of Traumatology (Vyzkumný ustav  
traumatologický), Brno

Prague, Prakticky lekar, No 15, 1963, p 593

"Tributyrinase in the Diagnosis of Injured Fat Embolism."

KROUPA, J.

Incidence of fat embolism after injuries in clinical practice.  
Roshl. chir. 42 no.7:433-442 Jl '63.

1. Vyskumny ustav traumatologicky v Brne, reditel prof. dr.  
Vl. Novak.

(EMBOLISM, FAT) (WOUNDS AND INJURIES)  
(FRACTURES) (STATISTICS)

KROUPA, J.; TEMLIK, H.; JANIK, B.

Late findings in traumatic fat embolism. Rozh. chir. 43 no.4:  
211-220 Ap '64.

1. Vyzkumny ustav traumatologicky v Brne (reditel prof. dr. Vl.  
Novak, DrSc.).

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000826710006-1

Fotometric Determination of Activated Charcoal

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000826710006-1"

KROUPA, M.

KROUPA, M. Polarographic determination of sulfur in steel. p. 39

Vol. 11, no. 1, Jan. 1956

HUTNICKÉ LISTY

TECHNOLOGY

Brno, Czechoslovakia

So: East European Accession Vol. 6, No. 2, 1957

KROUPA, Milan

Analysis of carbides isolated from steel. Hut listy 12  
no. 6:521-522 Je '57.

1. Ministerstvo narodni obrany, Praha.

REF ID: A6P(t)/EWP(b) IJP(c) JF

COLLECTION NR: AP5020850

ZL/0054/74.000/000/0005/0006

AUTHOR: Kroupa, Milan

TITLE: Polarographic determination of Bi, Pb, and Sb in steel

SOURCE: Hutnické listy, no. 9, 1964, 665-666

TOPIC TAGS: steel, bismuth, lead, antimony, polarographic analysis

ABSTRACT: The author describes a method that he designed for the determination of small amounts of the metals mentioned. The method allows to use for all 3 metals the same amount of metal weighed out. The list of the solutions needed is given. The analysis is described. The analysis is sensitive to the presence of Sn. This have to be either separated, or used only when it can't be determined otherwise. Method gives good results in analytical grade steel. (JF)

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODES: MM, OP

NO REF Sov: 000

OTHER: 000

JPRS

Card 1/1

KROUPA, P.

Hydraulics of filter beds. p. 77.  
VODA, Prague, Vol. 35, no. 3, Mar. 1956.

SO: Monthly List of East European Acquisitions, (EEAL), LC, Vol. 5, No. 6,  
June 1956, Unclassified.

KROUPA, P.

Economical diameter of compression conduits. p. 87.

(Voda. Vol. 36, no. 4, Apr. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

KROUPA, P.

TECHNOLOGY

Periodical: VODA. Vol. 37, no. 11, Nov. 1958.

KROUPA, P. Filtration of water. p. 321.

Monthly List of East European Accession (EKAI) LC, Vol. 8, no. 3  
March 1959 Unclass.

KFOUPA, P.

"Scouring of high-rate filters." p. 214.

VOINI HOSPODARSTVI. (Ustredni sprava vodniko hospodarstvi). Praha,  
Czechoslovakia, No. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

KROUPA, P.

Calculation of screen envelopes of wells. p. 483.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a vodniho hospodarstvi a  
Vedecka technicka spolecnost pro vodni hospodarstvi) Praha, Czechoslovakia,  
No. 11, Nov. 1959.

Monthly List of East European Accession (EMAI), LC Vol. 9, no. 2,  
Feb. 1960.

Uncl.

KROUPA, Radomir; KYSELY, Jaroslav; HUBSCHER, Rudolf

A unit for spraying heated coating materials. Stroj vyr  
10 no.10:522-523 0 '62.

1. Vagonka Tatra, n.p., Studenka.

KROMPA, V.

Through consistent application of organizational principles toward improved management of the coal industry. p. 187.  
VHJ, Praha, Vol. 5, no. 6, June 1955.

SO: Monthly List of East European Accessions, (EEL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

Kroupa, V.

Kroupa, V. The 1956 Autumn Fair in Vienna. p. 376.  
Pu. FM broadcasts on ultra-short wave frequencies and  
wired broadcasts. p. 378.

Vol. 4, no. 12, Dec. 1956  
SDELOVACI TECHNIKA  
TECHNOLOGY  
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957  
No. 5

KROUPA, V.

The Industrial Fair in Hanover.

P. 235, (Sdelevaci Technika) Vol. 5, no. 8, Aug. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acquisitions (EWA) Vol. 6, No. 11 November 1957

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

KROUPA, V.

Mechanization of administrative operations. p. 172.

UHLI. (Ministerstvo paliv) Praha, Czechoslovakia. Vol. 1, no. 5, May 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 10, Oct. 1959. Uncl.

KROUPA, Vaclav

Education of young people for managing positions in communication services. Cs spoje 7 no.6:29 Je '62.

1. Reditel obvodniho postovniho uradu Praha 1.

L 34,691-66

ACC NR: AP6025511

SOURCE CODE: CZ/0014/65/000/012/0453/0456

AUTHOR: Kroupa, Venceslav (Engineer)

JO

ORG: none

B

TITLE: Combination frequencies

SOURCE: Sdelovaci technika, no. 12, 1965, 453-456

TOPIC TAGS: frequency band, frequency division

ABSTRACT: The article presents a dot diagram which tells at first glance all the combination frequencies in a given transmission band, thus permitting the elimination of much laborious calculation. It is assumed that the mixed frequencies are mutually independent. Orig. art. has: 4 figures and 35 formulas. [JPRS: 34,691]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 001

card 1/1

0916 0891

KROUPA, Venceslav, inz.

Decade counters. Jaderna energie 3 no.3:74-79 Mr '57.

1. Ustav radiotechniky a elektroniky, Ceskoslovenska akademie ved,

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1

KROUPA, Venceslav

Digital measurement of phase shifting by electronic  
computers. Vestnik CSAV 73 no.2:277-278 '64.

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000826710006-1"

CZECHOSLOVAKIA

ZADRAZIL, S; KROUPA, Z; SOMKOVA, Z; SOMK, F.

Institute of Organic Chemistry and Biochemistry of the  
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,  
No 11, 1963, pp 3131-3138

"Influence of 8-Azaguanine on the Content of Nucleic Acids  
and Polymyxin Production with *Bacillus polymyxa*."

(4)

KROUPEK, S.,  
CZECHOSLOVAKIA

KROUPA, Z; ZADRAZIL, S; SOKOVA, Z; SOMI, F.

Institute of Organic Chemistry and Biochemistry of the  
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,  
No 11, 1963, pp 3163-3164

"Growth Inhibition of *Sacillus polymyxa* by Some Antimetabolites  
of Nucleic Acid Bases."

(7)

ZADRAZIL,S.; KROUPA,Z.; SORMOVA,Z.; SORM,F.

Influence of 8-azaguanine on the content of nucleic acids and polymyxin production with *Bacillus polymyxa*. Coll Cz Chem 28 no.11:3131-3139 1963.

Growth inhibition of *Bacillus polymyxa* by some antimetabolites of nucleic acid bases. 3163-3165

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague (for all except Kroupa).
2. Institute of Epidemiology and Microbiology, Prague (for Kroupa).

KRCUPOVA, J., inz.

Experimental apartment house on metallochemical basis. Stavivo 41 no.11: Supplement: Staviva a stavby: insert N°63.